

# FEDERAL PUBLIC SERVICE COMMISSION



## COMPETITIVE EXAMINATION FOR RECRUITMENT TO POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT, 2011

Roll Number

### ZOOLOGY, PAPER-II

<b>TIME ALLOWED:</b>	<b>(PART-I MCQs)</b>	<b>30 MINUTES</b>	<b>MAXIMUM MARKS: 20</b>
<b>THREE HOURS</b>	<b>(PART-II)</b>	<b>2 HOURS &amp; 30 MINUTES</b>	<b>MAXIMUM MARKS: 80</b>
<b>NOTE: (i) First attempt PART-I (MCQs) on separate Answer Sheet which shall be taken back after 30 minutes.</b>			
<b>(ii) Overwriting/cutting of the options/answers will not be given credit.</b>			

### (PART-I MCQs) (COMPULSORY)

- Q.1.** Select the best option/answer and fill in the **appropriate box** on the **Answer Sheet**. **(1 x 20=20)**
- (i) Which one of the enzyme is present in saliva:  
 (a) Tyaline (b) Pepsin (c) Enterokinase (d) Lipase (e) None of these
- (ii) Which one of the following act as Secondary Messenger after hormonal action on target cells:  
 (a) ATP (b) CTP (c) CAMP (d) ADP (e) None of these
- (iii) Besides nucleus of cell, which organelles also contain DNA?  
 (a) Golgibodies (b) Lysosome (c) Mitochondria (d) Cell Membrane (e) None of these
- (iv) Lysosome in a cell is responsible for:  
 (a) Autolysis (b) Autophagy (c) Intracellular digestion (d) All of these (e) None of these
- (v) ABO blood system in human is example of:  
 (a) Epistasis (b) Linkage (c) Polygenic inheritance (d) Multiple allele (e) None of these
- (vi) Who describe sex linkage in Drosophilla:  
 (a) Sutton (b) Garth Nicolson (c) Jhonathan Singer (d) Robertson (e) None of these
- (vii) The number of cranial nerves in man is:  
 (a) 8 (b) 10 (c) 12 (d) 14 (e) None of these
- (viii) Wings of Birds and fly are example of:  
 (a) Homologus organ (b) Analogus organ  
 (c) Vestigeal organ (d) All of these (e) None of these
- (ix) The main chemical composition of ribosome is:  
 (a) RNA + Protein (b) DNA + Protein  
 (c) Protein + Carbohydrate (d) Protein + Lipids (e) None of these
- (x) The hormone cortisone is secreted by:  
 (a) Pituitary gland (b) Ovary (c) Pancreas (d) Adrenal gland (e) None of these
- (xi) In pond ecosystem the primary consumer are:  
 (a) Zooplankton (b) Insect larvae (c) Fish (d) All of these (e) None of these
- (xii) The xx, xo sex determination mechanism is present in:  
 (a) Man (b) Grasshopper (c) Birds (d) All of these (e) None of these
- (xiii) The DNA replication is:  
 (a) Conservative (b) Semi conservative  
 (c) Dispersive (d) Equatorial (e) None of these

## **ZOOLOGY, PAPER-II**

- (xiv) Which one of the following genetic disorder is dominant in man:  
 (a) Colour blindness (b) Haemophilia (c) Tay-Sachs (d) All of these (e) None of these
- (xv) The abiotic factor that bring sudden changes in ecosystem is:  
 (a) Light (b) Soil (c) In organic nutrients (d) Fire (e) None of these
- (xvi) In human, blood clotting is due to the presence of protein called:  
 (a) Albumin (b) Globulin (c) Haemoglobin (d) Actin (e) None of these
- (xvii) Male sex hormones are collectively known as:  
 (a) Estrogen (b) Androgen (c) Cortisone (d) Somatotrophic (e) None of these
- (xviii) Which one of the following is not a Membrane bound cell organelle:  
 (a) Mitochondria (b) Endoplasmic Reticulum  
 (c) Ribosome (d) Chloroplast (e) None of these
- (xix) The enzyme pepsin is present in:  
 (a) Pancreatic Juice (b) Bile (c) Saliva (d) Gastric Juice (e) None of these
- (xx) The change in species composition of a community over a long period of time is called:  
 (a) Food chain (b) Food web  
 (c) Ecological succession (d) Nich (e) None of these

## **PART-II**

- NOTE:**(i) **PART-II** is to be attempted on separate Answer Book.  
 (ii) **Attempt ONLY FOUR questions from PART-II, selecting TWO questions from each SECTION. All questions carry EQUAL marks.**  
 (iii) **Extra attempt of any question or any part of the attempted question will not be considered.**

### **SECTION - I**

- Q.2.** (a) Describe the structure, chemical composition and function of Golgi complex. (10)  
 (b) Explain Transport mechanism of plasma membrane. (10)
- Q.3.** (a) Differentiate between Mitosis and Meiosis cell division. (10)  
 (b) Define linkage with examples. (10)
- Q.4.** (a) What are respiratory pigments? Describe haemoglobin in detail. (10)  
 (b) Explain digestion of protein. (10)
- Q.5.** (a) Describe the main component of nervous system (10)  
 (b) How nerve impulse is generated in neuron. (10)

### **SECTION - II**

- Q.6.** (a) Explain the Darwin theory about evolution. (10)  
 (b) Give an account of species concept. (10)
- Q.7.** (a) Differentiate between complete and incomplete ecosystem. (10)  
 (b) Describe Air Pollution. (10)
- Q.8.** Write short notes on the following: (5 x 4 = 20)
- (a) Evolutionary trend (b) Phylogeny  
 (c) Multiple alleles (d) Fossils.

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